

# *Cancellaria (Euclia) lauriettae*, a New Species of Cancellariidae (Mollusca: Neogastropoda) from Western Panama

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## ABSTRACT

*Cancellaria (Euclia) lauriettae* new species, is described from eleven specimens dredged in the Golfo de Chiriquí, Panama at depths of 270–360 meters. This species is assigned to the subgenus *Euclia* based on the morphology of its columellar plications, spiral sculpture, and overall shell shape. It is readily distinguished from the other Recent members of the subgenus by its lack of a distinct shoulder with spines or nodes and finer spiral sculpture.

**Key words:** Cancellariidae, Panamic Province, eastern Pacific, Neogene, bathyal.

## INTRODUCTION

This paper describes a new species of cancellariid that was recently trawled from bathyal depths in the Golfo de Chiriquí, Panama. Based on conchological features, it is assigned to the genus *Cancellaria* Lamarck, 1799, subgenus *Euclia* H. & A. Adams, 1854, which, in its Recent geographical range, is endemic to the tropical eastern Pacific. While similar to the Recent species *Cancellaria (Euclia) cassidiformis* Sowerby, 1832, and *C. (E.) balboae* Pilsbry, 1931, this new species is more similar to the Miocene *C. (E.) dinota* Woodring, 1970, from the Gatún Formation of Panama and especially the Late Miocene/Early Pliocene *C. (E.) maldonadoi* Olsson, 1964 of the Angostura Formation of Ecuador than to either of the Recent species. The taxonomic history of the subgenus *Euclia* is briefly reviewed, and a table of included species provided.

## ABBREVIATIONS USED

AMNH	American Museum of Natural History, New York
ANSP	Academy of Natural Sciences, Philadelphia
LACM	Natural History Museum of Los Angeles County, Los Angeles
USNM	National Museum of Natural History, Smithsonian Institution, Washington, DC.

## SYSTEMATICS

Family Cancellariidae Forbes & Hanley, 1851

Subfamily Cancellariinae Forbes & Hanley, 1851

Genus *Cancellaria* Lamarck, 1799

*Cancellaria* Lamarck, 1799. Type species: *Voluta reticulata* Linné, 1767, by monotypy.

Subgenus *Euclia* H. & A. Adams, 1854

*Euclia* H. & A. Adams, 1854, 277. Type species: *Cancellaria cassidiformis* Sowerby, 1832, by subsequent designation of Cossmann, 1899).

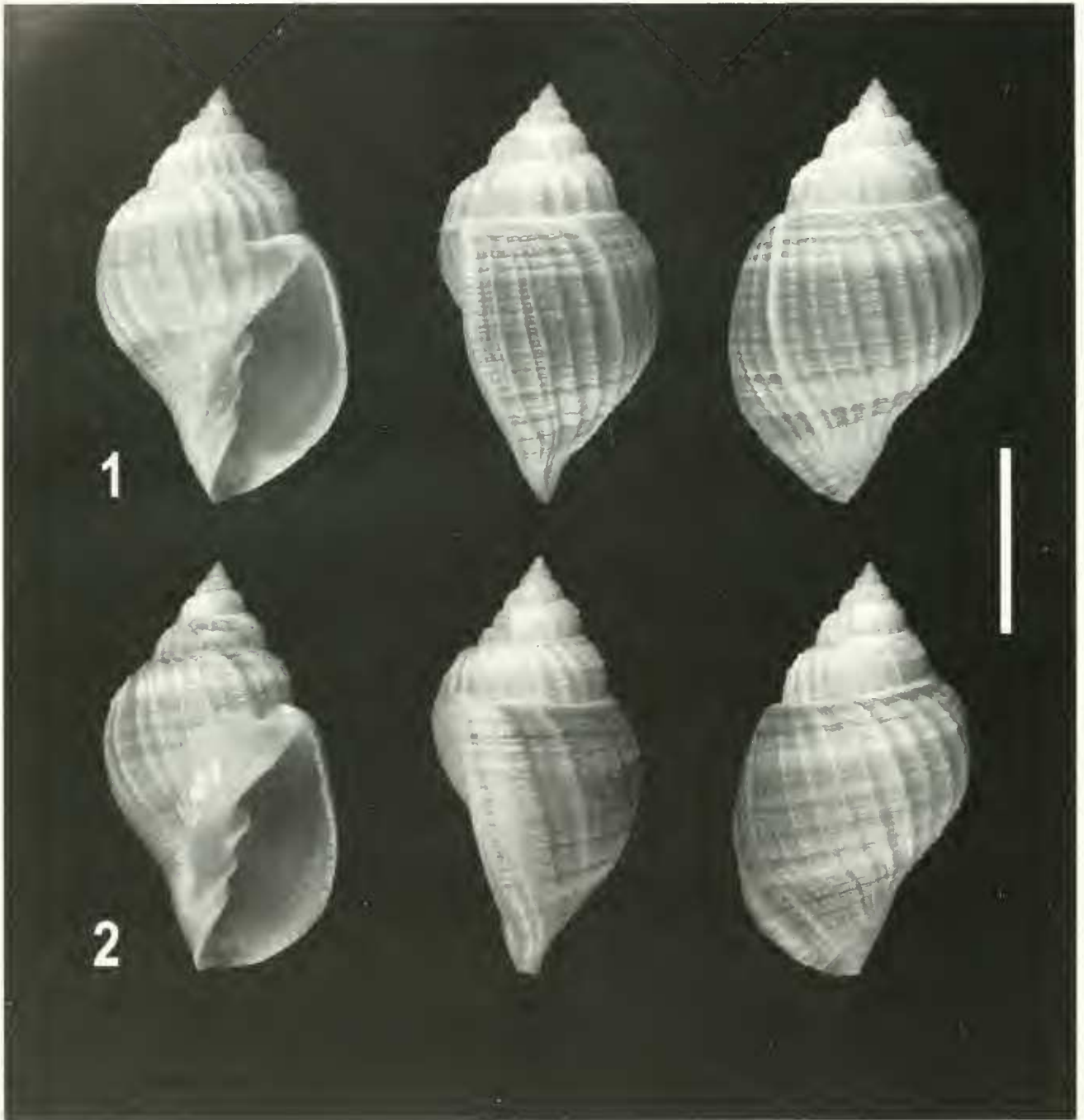
**Table 1.** Species assigned to the subgenus *Euclia*, together with their geographical and geological ranges.

### Panamic

- Cancellaria (Euclia) cassidiformis* Sowerby, 1832—Gulf of California to Peru, RECENT  
*C. (E.) balboae* Pilsbry, 1931—Mexico to Panama, RECENT  
*C. (E.) lauriettae*, new species—Gulf of Panama, RECENT  
*C. (E.) harpiformis* Pilsbry & Olsson, 1941—Ecuador, Canoa Formation, PLIOCENE  
*C. (E.) larkini* Nelson, 1870—Peru, Tumbes Formation, LATE MIOCENE  
*C. (E.) triangularis* Nelson, 1870—Peru, Tumbes Formation, LATE MIOCENE  
*C. (E.) dinota* Woodring, 1970—Panama, Gatún Formation, LATE MIOCENE  
*C. (E.) maldonadoi* Olsson, 1964—Ecuador, Angostura Formation, LATE MIOCENE

### Caribbean

- C. (E.) codazzii* Anderson, 1929—Northern Colombia, Tumbará Group, LATE MIOCENE–EARLY PLIOCENE  
*C. (E.) venezuelana* Hodson, 1931—Falcón, Venezuela, UPPER MIDDLE MIOCENE  
*C. (E.) montserratensis* Maury, 1925—Trinidad, Springvale Formation, EARLY PLIOCENE  
*C. (E.) uerenfelsi* Jung, 1965—Venezuela, Cantaura Formation, LATE EARLY MIOCENE



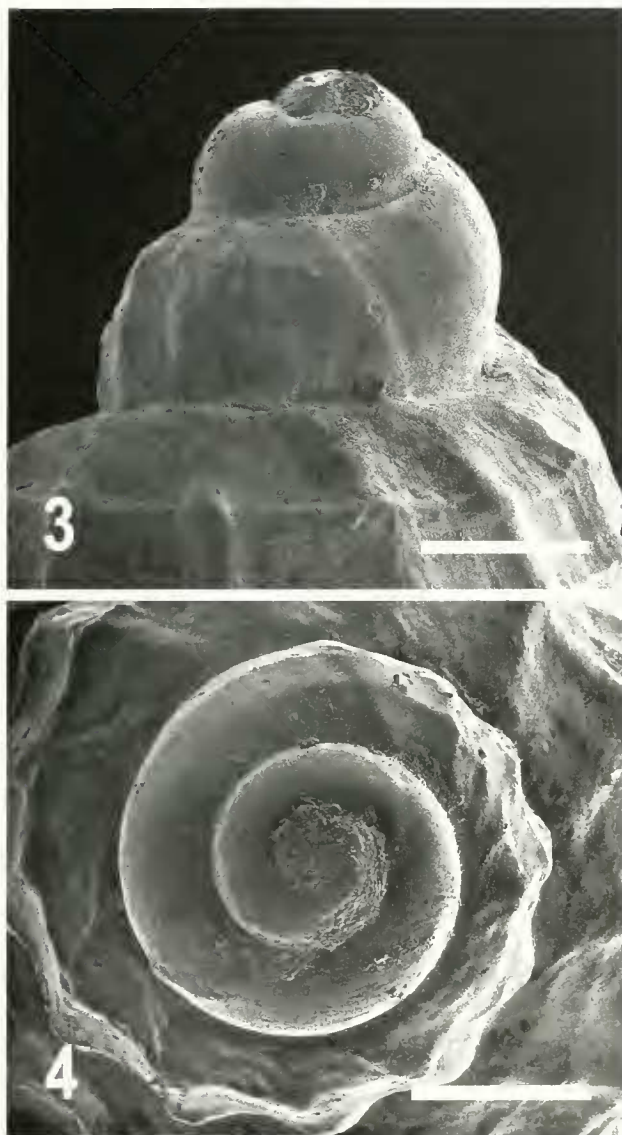
Figures 1–2. *Cancellaria (Euclia) lauretteae* new species. 1. Holotype, USNM 880277, 2. Paratype 1, USNM 880278, Off Isla Montnosa, Golfo de Chiriquí, Panama, trawled in 270–360 meters. Scale bar = 2 cm.

*Cancellaria (Euclia)*—Olsson, 1932:157; Olsson, 1964:122; Keen, 1971:651

**Diagnosis:** Shell with a conical spire and large body whorl not contracted at the base as in *Cancellaria s.s.* Shoulder on body whorl may be smooth, tuberculate, or spinose. Spiral sculpture of sharply defined cords or threads that are narrower than intervening spaces. Columella lacking an umbilicus to weakly pseudo-umbili-

cate, with 2 sharply keeled columellar folds (posterior fold not bifid) and a siphonal fold. Parietal callus generally present.

**Remarks:** The taxonomic history of *Euclia* was summarized by Olsson (1932), who noted that Jousseaume (1857) and Cossmann (1899) considered it to be synonymous with *Cancellaria*. Olsson (1932:158) regarded Cossmann's (1899) designation of *Cancellaria cassidifor-*



Figures 3–4. *Cancellaria (Euclia) laurrettae* new species. 3. Lateral and 4. apical views of protoconch of holotype. Scale bars = 500  $\mu$ m.

*mis* as type species of *Euclia* to be an unfortunate misinterpretation of H. & A. Adam's intent, because, of the 4 species originally included in *Euclia* by these authors, it differs most from their description. Although *Euclia* is restricted to the Panamic Province in the Recent fauna, its range extended into the Caribbean during the Neogene. Species presently included in this subgenus are listed in Table 1.

*Cancellaria (Euclia) laurrettae* new species  
(Figures 1–4, Table 2)

**Description:** Shell (figures 1–2) to 46 mm, thin, biconic, lacking umbilicus or weakly pseudumbilicate. Spire high (spire angle 65–71°) conical, comprising about 1/3 shell length. Protoconch (figures 3–4) coaxial

**Table 2.** Shell measurements of *Cancellaria (Euclia) laurrettae* new species. All linear measurements in mm. The measurements are based on the entire type series, consisting on the holotype and 10 paratypes (N = 11).

Character	Mean	Range	$\sigma$
Shell length	43.0	35.6–46.2	2.2
Aperture length	30.6	25.0–31.8	1.5
No. of whorls, protoconch <sup>1</sup>	2.5	2.2–2.6	0.1
No. of whorls, teleoconch	5.6	4.6–6.0	0.4
No. of axial ribs, body whorl	24.6	20–30	3.0
No. apertural lirae	13.1	0, 12–14 <sup>2</sup>	0.9

<sup>1</sup> N = 9 for this character

<sup>2</sup> Apertural lirae were not yet developed in 2 specimens and thus scored at 0. When present, apertural lirae numbered 12–14. The mean and standard deviation for this character is based on 9 specimens.

with teleoconch, paucispiral, of approximately 2½ low, evenly inflated, glassy whorls, separated from teleoconch by flaring lip. Teleoconch of up to 6 evenly convex whorls. Shoulder inconspicuous. Suture deeply impressed. Axial sculpture of 20–30 ribs, triangular in profile, narrower than intervening spaces. Ribs prosocline on body whorl, less so on siphonal canal, with conspicuous inflection at stromboid notch. Spiral sculpture of fine, evenly spaced primary cords (3 on early whorls, 6–9 on penultimate whorl, 56–62 on body whorl and siphonal canal) that form weakly cancellate sculpture at intersections with axial ribs. Weaker, secondary cords appear between adjacent primary cords on body whorl. Fine threads (0–1) present between primary and secondary cords in most specimens. Aperture deflected from coiling axis by 20–22°, large, broad and evenly rounded or with outer edge straight and nearly parallel to coiling axis. Specimens with ovate apertures lighter in weight, with thinner parietal calluses that specimens with straight-sided outer lips. Outer lip finely crenulated, weakly outwardly flared, with broad, shallow "stromboid notch". Inner surface may be smooth or bear 12–14 recessed spiral lirae, diminishing 1/6th whorl into the aperture. Inner lip with 2 columellar and 1 siphonal fold, each with single, sharp keel. Most posterior fold largest, overlaying weak siphonal fasciole, anterior siphonal fold weaker, strongly deflected anteriorly. Pustules (3–4) may be present on inductura in region between columellar folds. Siphonal canal narrow, nearly axial. Base color white to light beige, with 3 broad, spiral bands of ginger to dark brown (darkest along suture, 1 at mid-whorl, 1 anterior to stromboid notch). Aperture with light tan overglaze, with darker band along outer lip of specimens with strong denticles.

**Type locality:** Off Isla Montuosa, W of Punta Hermosa, Isla de Coiba, Golfo de Chiriquí, Panama, trawled in 270–360 meters.

**Type material:** Holotype, USNM SS0277, 44.9 mm; Paratype 1, USNM SS0275; Paratype 2, LACM 2815; Paratype 3, ANSP 401150; Paratype 4, AMNH 292527;

Paratypes 5-6, R. Petit Collection; Paratypes 7-8, E. Garcia Collection; Paratypes 9-10, J. Ernest Collection. All from type locality.

**Etymology:** This species honors Mrs. Lauretta Marr of Midland, Texas, for her contributions to the collection and study of Panamic mollusks.

**Comparative remarks:** *Cancellaria laurettae* occurs in 2 forms as indicated in the above description. The ovate form (figure 1) is much lighter in weight and slightly larger than the squarer form (figure 2). As no anatomical material is available, it is not clear if these differences represent sexual dimorphism. This new species differs from the 2 previously known Recent species included in the subgenus *Euclia* by Keen, 1971, by its lack of a well-defined tuberculate shoulder and by its more delicate sculpture. *Cancellaria laurettae* is closest in overall appearance to the Late Miocene *C. (E.) maldonadoi* Olsson, 1964 (which Woodring, 1970, incorrectly synonymized with *C. (E.) codazzii* Anderson, 1929) than to the other Recent or fossil species. However, it differs from *C. maldonadoi* in lacking a peripheral cord on the shoulder, in having more numerous and finer spiral sculpture and in lacking folds along the inductural region of the parietal shield.

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